

REMARKS

Information Disclosure Statement

The Examiner has objected that the listing of references in the specification is not a proper information disclosure statement. Applicants respectfully point out that such an information disclosure statement was in fact filed together with the Preliminary Amendment mailed 22 May 2001 and its receipt acknowledged by the USPTO. Copies of the acknowledgement and submissions including the cited references are attached herewith. It is respectfully requested therefore that this objection be withdrawn and that the art be considered on the record.

It is noted that the art referenced in the IDS is distinguished by the definition of R₂, R, and/or the location of the sulfonamide group relative to the present claims.

Rejection under 35 U.S.C.112

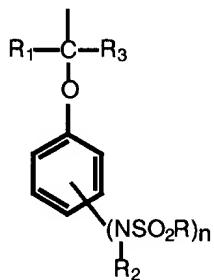
Claims 14, 15, 16 and 19 are rejected under 35 USC 112 second paragraph as being indefinite for failing to particularly point out and distinctly claim the subject matter to which Applicants regard as the invention, insofar as it is not clear with respect to which groups the terms ortho and para refer. Applicants respectfully believe that the Examiner intended to refer to claims 13, 14, 19, 23 and 24, since it is in these claims that the expressions to which objection has been raised are present. Although it is believed that the terms 'ortho and para' in the unamended claims are unambiguously defined to the skilled artisan relative to the only other phenyl ring substituent shown in the formula, further clarification has been effected by the insertion of the phrase 'with respect to the alkoxy group' in each of the above claims. Applicants request that the Examiner therefore withdraw her objection in this regard.

Furthermore Applicants have amended claim 13 to delete the last two lines which were erroneously introduced in the preliminary Amendment mailed 22 May 2001.

Rejection under 35 U.S.C. 102

Claims 13-24 are rejected under 35 U.S.C.102(b) as anticipated by Osborn *et al.* Osborn indeed teaches a method for making a photographic element comprising at least one silver halide emulsion layer having associated therewith a phenolic cyan dye-forming coupler of formula as defined in column 2 of US 4,124,396. However it is respectfully pointed out that substituent R₁ in that formula can only be one of the groups R₄SO₂NH or R₄NHSO₂. Thus there must be a hydrogen atom adjacent to the nitrogen atom.

In contrast the invention disclosed in the present specification is directed exclusively to those compounds having an N-alkyl, aryl or heterocyclic sulphonamide substituent in the group Y or Z, with there being no possibility of there being a hydrogen atom adjacent to the nitrogen atom. Thus each of the independent claims 13, 14, 23 and 24 requires that one of Y and Z is the group



wherein

R₂ is an unsubstituted or substituted alkyl or aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted.

Thus even though the examiner is correct in that certain of the other substituents have the same or overlapping definitions, the structures in the two cases are mutually exclusive in the nature of the 'group' adjacent the nitrogen atom. Osborn *et al.* cannot therefore, with respect, deprive the present case of novelty.

Moreover comparative data is present in Applicants' specification to compare a compound within the scope of Osborn *et al.*, namely CC-1, with its exact N-methylated counterpart compound I-1. The results show that I-1 has superior light stability to comparative coupler CC-1 whilst

maintaining a good light stability, activity and dye hue. Applicants respectfully submit therefore that the compounds of the present specification also have inventive merit over the compounds of Osborn *et al.*

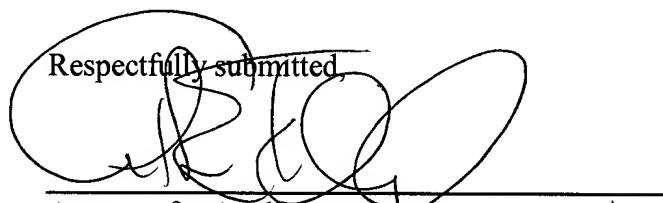
The foregoing distinction between Osborn and the independent claims 13, 14, 23 and 24 apply equally well to the remaining dependent claims.

In summary none of the claims 13 -24 is anticipated by Osborn in view of the mutual exclusivity in definition of the 'group' attached to the nitrogen atom in the group $(NR_2SO_2R)_n$ of Applicants' specification.

In view of the foregoing amendments and remarks, reconsideration of this patent application is respectfully requested. A prompt and favorable action by the examiner is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page(s) are captioned "Version With Markings To Show Changes Made."

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Respectfully submitted


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Registration No. 25,518

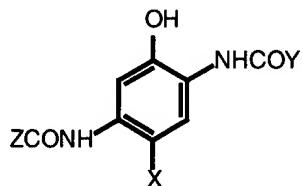
Enclosures

VERSION WITH MARKINGS TO SHOW CHANGES MADE

In the Claims:

13. (Amended) A photographic element comprising at least one silver halide emulsion

layer having associated therewith a phenolic cyan dye-forming coupler of formula (I)

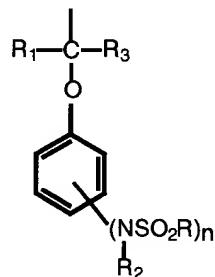


(I)

wherein

X is hydrogen or a group that can be split off by the reaction of the coupler with an oxidised colour developing agent, and

one of Y and Z is the group



wherein

each R is independently an unsubstituted or substituted alkyl or aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted;

R₁ is hydrogen or an unsubstituted or substituted alkyl or aryl group,

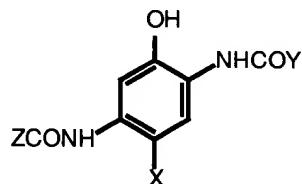
R₂ is an unsubstituted or substituted alkyl or aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted;

R₃ is hydrogen or an unsubstituted or substituted alkyl or aryl group,

n is 1 or 2, and each group $-N(R_2)SO_2R$ is in the ortho or para position with respect to the alkoxy group,

the other of Y and Z is a fluoro-substituted alkyl group or an unsubstituted or substituted aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted, provided that (a) when R₂ is an unsubstituted benzyl group, n is 1 and $-N(R_2)SO_2R$ is in the ortho position with respect to the alkoxy group, R may not be a pyridyl group, and (b) at least one of R, R₁, R₂, X and Y or Z is or includes a ballast group.
[(new) An element as claimed in claim1 wherein R, R₁ and R₂ are independently an unsubstituted or substituted alkyl group.]

14. (Amended) A photographic element comprising at least one silver halide emulsion layer having associated therewith a phenolic cyan dye-forming coupler of formula (I)

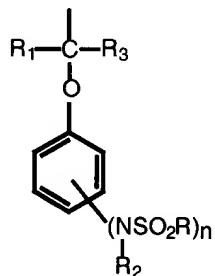


(I)

wherein

X is hydrogen or a group that can be split off by the reaction of the coupler with an oxidised colour developing agent, and

one of Y and Z is the group



wherein

each R is independently an unsubstituted or substituted alkyl or aryl group;
R₁ is hydrogen or an unsubstituted or substituted alkyl or aryl group,
R₂ is an unsubstituted or substituted alkyl or aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted;

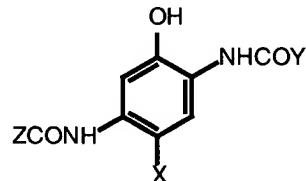
R₃ is hydrogen or an unsubstituted or substituted alkyl or aryl group,
n is 1 or 2, and each group -N(R₂)SO₂R is in the ortho or para position with respect to the alkoxy group,

the other of Y and Z is a fluoro-substituted alkyl group or an unsubstituted or substituted aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted.

19. (Amended) An element as claimed in claim 14 wherein n is 1 and the group

-N(R₂)SO₂R is in the para position with respect to the alkoxy group.

23. (Amended) A multicolour photographic element comprising a support bearing yellow, magenta and cyan image-dye-forming units comprising at least one blue-, green- or red-sensitive silver halide emulsion layer having associated therewith at least one yellow, magenta or cyan dye-forming coupler respectively, wherein the element comprises at least one cyan dye-forming coupler of formula (I)

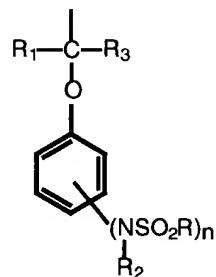


(I)

wherein

X is hydrogen or a group that can be split off by the reaction of the coupler with an oxidised colour developing agent, and

one of Y and Z is the group



wherein

each R is independently an unsubstituted or substituted alkyl or aryl group;

R₁ is hydrogen or an unsubstituted or substituted alkyl or aryl group,

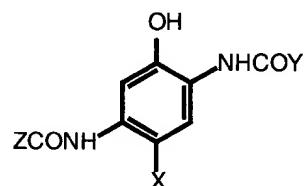
R₂ is an unsubstituted or substituted alkyl or aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted;

R₃ is hydrogen or an unsubstituted or substituted alkyl or aryl group,

n is 1 or 2, and each group -N(R₂)SO₂R is in the ortho or para position with respect to the alkoxy group,

the other of Y and Z is a fluoro-substituted alkyl group or an unsubstituted or substituted aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted..

24. (Amended) A process of forming an image in a photographic element after the element has been imagewise exposed to light, comprising contacting the element with a colour developing agent, the element comprising at least one silver halide emulsion layer having associated therewith a phenolic cyan dye-forming coupler of formula (I)

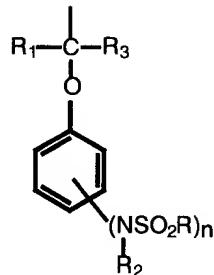


(I)

wherein

X is hydrogen or a group that can be split off by the reaction of the coupler with an oxidised colour developing agent, and

one of Y and Z is the group



wherein

each R is independently an unsubstituted or substituted alkyl or aryl group;

R₁ is hydrogen or an unsubstituted or substituted alkyl or aryl group,

R₂ is an unsubstituted or substituted alkyl or aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted;

R₃ is hydrogen or an unsubstituted or substituted alkyl or aryl group,

n is 1 or 2, and each group -N(R₂)SO₂R is in the ortho or para position with respect to the alkoxy group,

the other of Y and Z is a fluoro-substituted alkyl group or an unsubstituted or substituted aryl group or a 5-10 membered heterocyclic ring which contains one or more heteroatoms selected from nitrogen, oxygen and sulfur, which ring is unsubstituted or substituted..